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BEFORE THE ARIZONA CORPORATION COMMISSION**COMMISSIONERS**

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Arizona Corporation Commission

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IN THE MATTER OF THE APPLICATION
OF TUCSON ELECTRIC POWER
COMPANY FOR APPROVAL OF ITS 2015
RENEWABLE ENERGY STANDARD
IMPLEMENTATION PLAN.

Docket No. E-01933A-14-0248

**COMMENTS OF THE CLEAN COALITION REGARDING THE PROPOSED
UTILITY-OWNED DISTRIBUTED GENERATION PROGRAM**

The Clean Coalition offers the following comments on the Utility-Owned Distributed Generation Program (Pilot) proposed by Tucson Electric Power Company (TEP) in its 2015 Renewable Energy Standard Implementation Plan.

- Generally, the Clean Coalition supports this Pilot as a worthwhile experiment since it would address many of the barriers to proliferation of distributed renewable generation. However, the Clean Coalition does not assert that the Pilot Program should replace Net Energy Metering programs.
- The Clean Coalition strongly recommends comprehensive and open reporting requirements for the Pilot so that the planned and achieved locational values of the solar facilities, including the advanced inverter functionality, are shared widely, including with existing and potential TEP competitors.
- Based on extensive experience with designing renewable energy programs in collaboration with utilities and policymakers in markets across the country, the Clean Coalition recommends a transparent process for selecting solar installers.

- We recommend that any future expansions or reauthorizations of the Pilot also provide attractive opportunities for participation by commercial and industrial market segments.

I. Clean Coalition Background

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement, interconnection, and realizing the full potential of integrated distributed energy resources, such as distributed generation, advanced inverters, demand response, and energy storage. The Clean Coalition also works with utilities to develop Community Microgrid projects that demonstrate that local renewables can cost-effectively provide at least 25% of the total electric energy consumed within the distribution grid, while maintaining or improving grid reliability. The Clean Coalition is active in numerous energy-related proceedings throughout the United States.

The Clean Coalition is a leading expert on the design and implementation of distributed generation procurement programs. The Clean Coalition has developed a Resource Hub¹ with a wealth of free tools to help policymakers and utilities with opening the wholesale distributed generation market segment throughout the United States. The Resource Hub includes the Local CLEAN Program Guide, which provides step-by-step guidance on designing and implementing a utility-specific distributed generation program.

¹ The Clean Coalition Resource Hub is available at <http://www.clean-coalition.org/resource/the-resource-hub/>.

II. Comments on the Pilot

The United States' transition to the new energy future is projected to cost trillions of dollars.² To meet this challenge, all parties should be encouraged to invest in this future, including Investor Owned Utilities (IOUs). This Pilot addresses one of the most significant barriers to widespread adoption of distributed renewable generation—resistance by IOUs to engaging in the new energy future.

This Pilot represents a highly innovative approach that could set the stage for a model for evolving utility business models that provide pathways for IOUs to thrive in a distributed energy future. This Pilot can demonstrate how utilities can avoid revenue losses and reduce distribution costs by investing in distributed solar and tapping advanced inverters capabilities that are available in most inverters being deployed in renewable generation and energy storage projects today.

The Pilot also gives greater visibility and control of distributed solar to the utility, enabling the utility to site projects in optimal locations³ and operate projects more efficiently. The costs and benefits of distributed generation are largely dependent on location. In recognition of this fact, California law requires utilities to propose Distribution Resources Plans by July 2015 to guide DERs to optimal locations on the distribution grid, while allowing utilities to rate-base only distribution grid investments that yield net benefits for ratepayers.⁴ This Pilot will demonstrate one way that utilities can guide projects to optimal locations on the grid.

² Mark Z. Jacobson, et. al., *100% Wind, Water, Sunlight (WWS) All Sector Energy Plans for the 50 United States* (Stanford University, 2014), at 32.

³ For information about how to determine the optimal locations for DERs, please see the *Clean Coalition Responses to the Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans* (California Public Utilities Commission R.14-08-013), dated September 5, 2014, available at <http://www.clean-coalition.org/site/wp-content/uploads/2014/09/DRP-OIR-Clean-Coalition-responses-06a-ssw-5-Sept-2014.pdf>.

⁴ California Public Utilities Code Section 769, added by California Assembly Bill 327 (2013).

This Pilot also creates an opportunity for TEP to be the first utility in the United States to demonstrate the value of harnessing advanced inverter functionality for voltage control.⁵ The Clean Coalition strongly recommends comprehensive and open reporting requirements for the Pilot so that the planned and achieved locational values of the solar facilities are shared widely, including with existing and potential TEP competitors. These locational values should include avoided real and reactive power line losses, avoided transmission and distribution investments, avoided congestion costs, and greater system reliability and resilience.⁶

Based on extensive experience with designing renewable energy programs in collaboration with utilities and policymakers in markets across the country, the Clean Coalition recommends a transparent and predictable process for selecting solar installers. The Clean Coalition's Local CLEAN Program Guide provides best practices for designing processes and procedures for distributed generation programs.⁷

This Pilot will also help to facilitate the rollout of future distributed generation programs for commercial and industrial market segments. The Clean Coalition recommends that any future expansions or reauthorizations of the Pilot provide attractive opportunities for participation by commercial and industrial market segments, which include the most cost-effective rooftop and parking lot sites.⁸ We recommend that a future pilot program offer wholesale payments rather than bill credits for commercial, industrial, and multi-family customers. Since local solar programs throughout the United States have mostly required

⁵ For information about the value of advanced inverters, see <http://www.clean-coalition.org/resource/the-resource-hub/state-level-resources/renewables-integration/>.

⁶ *Locational Benefits of Distributed Generation* (Clean Coalition, November 2013), available at www.clean-coalition.org/site/wp-content/uploads/2012/10/Local-CLEAN-Program-Guide-Module-6-Designing-CLEAN-Policies-Procedures-SSW_21-12-June-2012.pdf.

⁷ See *Local CLEAN Program Guide Module 6: Designing CLEAN Policies & Procedures*, available at http://www.clean-coalition.org/site/wp-content/uploads/2014/08/CC-CPUC-NEM20-Comments-ssw_09-30-May-2014.pdf.


⁸ These sites are generally at optimal locations on the grid and offer significant economies of scale. See the *Clean Coalition Responses to the Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans* (California Public Utilities Commission R.14-08-013), dated September 5, 2014, available at <http://www.clean-coalition.org/site/wp-content/uploads/2014/09/DRP-OIR-Clean-Coalition-responses-06a-ssw-5-Sept-2014.pdf>.

behind-the-meter interconnections, local solar adoption has been limited to owner-occupied, single-tenant properties since other types of customers are not incentivized by bill credits.⁹ Further, the Pilot and many traditional net energy metering programs fail to compensate customers for generation in excess of the customer's load. As a result of both of these limitations, these programs fail to generate significant participation from the commercial and industrial market segments.¹⁰

III. Conclusion

The Clean Coalition recommends, subject to the additional reporting and transparency requirements noted above, that the Commission approve the Utility-Owned Distributed Generation Program proposed by Tucson Electric Power Company in its 2015 Renewable Energy Standard Implementation Plan. The Clean Coalition further recommends that any future expansion or reauthorization of the Pilot also provide attractive opportunities for participation by large commercial, multi-family, and industrial customers.

Respectfully submitted this 12th day of September, 2014.



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⁹ See Ethan Elkind, *In Our Backyard: How to Increase Renewable Energy Production on Big Buildings and Other Local Spaces* (UC Berkeley Law and UCLA Law, 2009), available at http://www.law.berkeley.edu/files/In_Our_Backyard_Dec_3_2009%281%29.pdf.

¹⁰ For more information about the importance of expanding participation in distributed generation programs, see the Clean Coalition's comments to the California Public Utilities Commission (May 2014), available at http://www.clean-coalition.org/site/wp-content/uploads/2014/08/CC-CPUC-NEM20-Comments-ssw_09-30-May-2014.pdf.

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